

ORIGINAL RESEARCH

# Evaluation and Support Mechanisms of an Emerging University-wide Global Health Training Program



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## Abstract

**BACKGROUND** Global health education is in high demand in the United States, across the continuum of learning, and field experiences are an essential part of this education. However, evaluations of these programs are limited.

**OBJECTIVES** The aim of this study was to evaluate a field placement program at Johns Hopkins University, in Baltimore, Maryland, to understand how to better support student training overseas and faculty mentorship.

**METHODS** We used qualitative and quantitative methods to gather data from program reporting requirements (152 student surveys and 46 experiential narrative essays), followed by 17 semistructured interviews, and 2 focus groups. Data were analyzed through manual coding and a socioecological model served as an analytical and a synthesizing framework.

**FINDINGS** A series of factors influence the participants' experience in overseas placements spanning across 4 aggregate levels, from individual to societal, including opportunity for professional advancement, independence, loneliness and illness, mentorship quality, funding, institutional partnership building, opportunity for public health contribution, and for development of cultural competency. Faculty and students thought that the program was beneficial to the learning experience, particularly for its contribution to experiential knowledge of a low- and middle-income country setting and for developing cross-cultural relationships. Communication and scope of work were 2 areas in which students and faculty members often had different expectations and many students emerged having cultivated different skills than they or their mentor initially expected. Students found the experience useful for both their academic and professional careers and faculty members saw mentorship, one of their professional responsibilities, emerge.

**CONCLUSIONS** Many socioecological factors influence an overseas field experience, which in turn produces important effects on students' career choices, and faculty members appreciate the opportunity to serve as mentors. The most vital support mechanisms suggested for faculty and students included available funding, clear preparation, and communication facilitation across the experiential continuum.

**KEY WORDS** collaboration, communication, education, evaluation, global health, health, partnerships, public health, qualitative, training

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## INTRODUCTION

Over the past 2 decades, student demand for academic programs in global health has increased drastically. Approximately 250 North American universities now have global health education offerings, ranging from undergraduate curricula to doctoral programs.<sup>1</sup> A survey of university global health programs found that although 81% of respondents reported a significant proportion of their global health activities focus on education, training, and mentoring, far fewer focus on student travel opportunities.<sup>2</sup>

Field education is essential to comprehensive global health training: overseas placements provide students with the opportunity to integrate their classroom knowledge with applicable skills in a global health setting. Programs that offer overseas placements have been found to improve students' cultural competency ("the ability of individuals to establish effective interpersonal and working relationships that supersede cultural differences"<sup>3</sup>) and personal and professional growth.<sup>2,4-9</sup> A systematic literature review on the influence of medical international health electives showed participants were more likely to report attitudinal changes and seek employment in low-income clinics, pursue graduate education in public health, or both.<sup>10</sup> Furthermore, students who studied abroad were more likely to become globally engaged citizens, defined as a combination of global leadership, global values, philanthropic donations, volunteerism, and domestic and international civil engagement.<sup>11</sup>

In preparation of this work, we surveyed a number of universities with established global health training programs that include overseas field education. Of the 10 global health programs we surveyed, excluding ours, 8 facilitated student travel overseas for original student research, student teams collaborating on a field experience, and students joining an established faculty member project. Programs vary in scale and scope depending on the university, department, center, and institute. Duration varies, between 1 and 6 months, and funding between \$800 and \$5000 depending on the length and location of the project. Although some programs support only 1 individual student, others support between 10 and 75 per year. The smaller programs often specify the region or theme students must operate within. The larger programs frequent more than 90 different countries, the majority of which are low- and middle-income countries (LMICs). Upon return, different programs require

students complete a combination of presentations, posters, narratives, and surveys. Although programs have arisen to fill the demand for academic global health programs, they have not been formally evaluated, and limited research has been conducted on how to support and manage these experiences to the mutual benefit of students, faculty, and global south partners.

This study was designed to evaluate student and faculty perceptions on the Johns Hopkins University Center for Global Health (CGH) field placement program on how to better support student training in overseas settings.

## METHODS

The Johns Hopkins University CGH was founded in 2006 to address the increasing demand for global health opportunities among students and faculty across disciplines. Initially, student travel and practice experience in LMICs was limited, funding only 12 students. Over time, student and faculty interest in field placement programs has grown significantly. Currently, the Global Health Established Field Placements (GHEFP) provides \$3500 travel grants to students to work with faculty members on their research or practice projects overseas, as a means to work with global health mentors and attain international cross-cultural field experience. Students use this grant for master's practicums, dissertation development, and work experience. The program requires students remain at their placement for no less than 6 weeks, although more than half remain overseas for longer than 10 weeks and many do so for 16 to 26 weeks. In the past 3 years, this program has sent 186 students to field placements. The sampling frame included 54 faculty mentors and 186 undergraduate and graduate students from the Johns Hopkins University Schools of Arts and Sciences, Medicine, Nursing, and Public Health who had participated in the GHEFP from 2011 to 2013.

**Conceptual Framework.** This research was designed to assess global health experiential learning from more than just the individual level; the aim was to address more distal, macro-scale factors that may influence social outcomes in populations.<sup>12</sup> A socioecological (SE) model serves as the conceptual framework to analyze perceptions of the GHEFP program at Johns Hopkins. SE theory underscores the interdependence of the individual and his or her sociophysical environment.<sup>13,14</sup> It integrates multiple levels of influence across

different levels of society, providing a holistic model through which to assess a particular social outcome, to intervene, and to engender change.<sup>15</sup>

Influencing factors revealed in the data are categorized according to their socioecological level (individual, interpersonal, institutional, and societal). The use of the SE model provides deeper insight on the integration of the awardee, the mentor, and their broader environment. Figure 1 provides a schematic of this conceptual model.

**Data Collection.** We used qualitative and quantitative methods, analyzing information from program reporting requirements (student surveys and experiential narrative essays), followed by semistructured interviews, and focus groups to better understand faculty and student experiences with the GHEFP program. All awardees and faculty mentors were eligible to participate in the study.

**Program Reporting Requirement Materials.** Students were required to provide feedback on their programmatic experiences by submitting online survey responses and a 1-page reflection narrative.

**Survey.** The CGH conducted participant feedback surveys in 2011 (30 responses/40 students), 2012 (47 responses/66 students), and 2013 (75 responses/80 students) immediately after the students' return. Surveys contained 28 multiple-choice or scale rating questions on participant preparation, experience with the center during the application and post-awards announcement, and effect of the placement on their education and career goals, with fields for question-specific and general

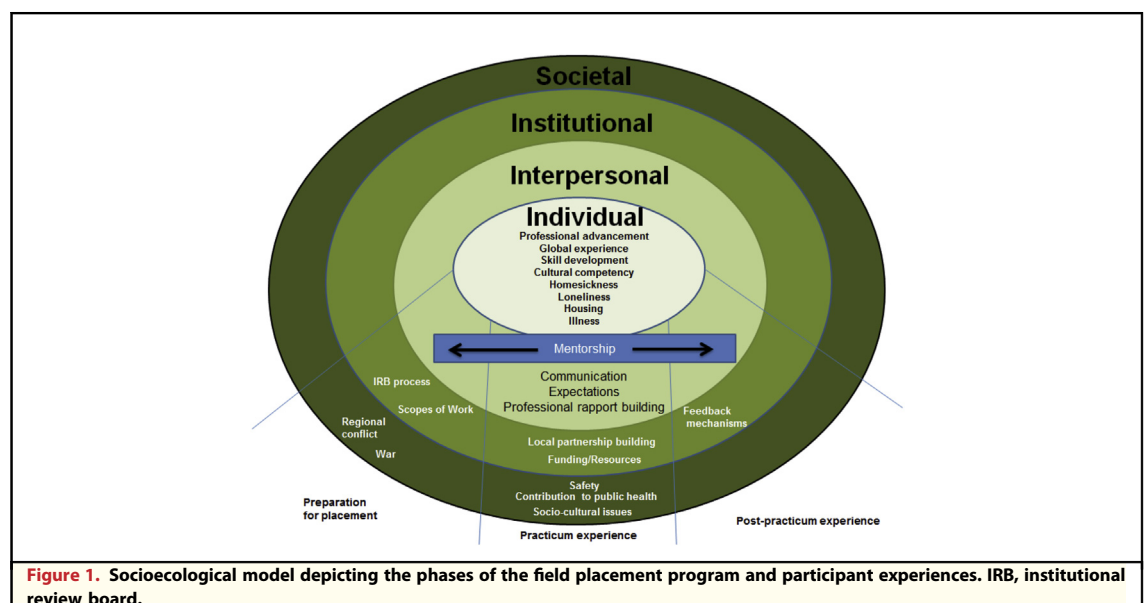
comments. Faculty members also receive a brief survey each year.

**Narratives.** Each narrative was a personal reflection of a student's experience. We analyzed 46 student narratives from 2012 and 2013 to identify prominent themes.

**Student and Faculty Interviews and Focus Group Discussions.** From January to April 2014, a third-party/independent graduate student research group collected qualitative data under a 2-series graduate-level qualitative research and analysis course at the Johns Hopkins Bloomberg School of Public Health.

Interviews and focus groups were conducted in English, audiorecorded by digital recorders, and transcribed.

**In-depth interviews.** Ten student awardees and 7 faculty mentors participated in in-depth interviews (IDIs). The IDI guides focused on the 3 stages of the GHEFP program: predeparture, field experience, and postfield placement. For each stage, we identified a set of semistructured questions to ask during each IDI, with optional probing subquestions at various levels of our SE model framework. Interview guides asked about the application process and matching, expectations, predeparture preparations and available support, funding, communication issues, challenges during fieldwork, negotiations on the scope of work, the field placement's effect on students' professional advancement, overall experience, and suggestions for programmatic improvement.



**Figure 1.** Socioecological model depicting the phases of the field placement program and participant experiences. IRB, institutional review board.

**Focus group discussions.** Two separate focus group discussions (FGD) were conducted for this study, 1 with student awardees (5 participants) and 1 with faculty mentors (9 participants). The topics that emerged from IDIs informed the FGD guide. These included attitudes towards and engagement with the program, the mentor's programmatic role, and suggestions for improving the process.

**Data Analysis.** Quantitative data was analyzed to calculate response frequencies using Microsoft Excel. For IDI and FGD data, we line-by-line coded the transcripts and developed a preliminary codebook of open codes by emerging theme, later organized in sets by axial codes drawing from the SE model. Theme sets were then synthesized visually within the same SE model structure.

## RESULTS

Using the SE model as a framework, we depicted the many factors affecting the experiences of students and faculty across the continuum of the GHEFP program.

### Individual Factors

#### Professional advancement and skill acquisition.

When asked why awardees chose to participate in the program, most student respondents said that they thought they would obtain helpful skills (83.7%). Other common responses to the survey included "requirement for degree" (40%) and "I am considering a career in global health and wanted to see if it 'fit'" (39.5%). The IDIs and FGDs also showed skill acquisition and professional advancement were common reasons for participating. Students looking to continue their education felt the GHEFP would help them get into their degree program of choice and those looking for jobs believed it would make them more competitive.

Some students also mentioned that participating in the GHEFP enabled them to acquire valuable skills including foreign language, interpersonal interaction, and adaptation to new environments. One student summarized this common sentiment:

being there by myself for most of the time and interacting with these people, and there's a language barrier and everything, it really helped me learn, and it gave me so many skills that I utilize now. I feel like the most beneficial thing for me was just learning to adapt to a situation.

The field placements provide opportunities for students to experience a range of tasks and gain exposure to a breadth of skills. One faculty member explained:

it's really an opportunity for them to try a number of different kinds of experiences to give them that breadth of options so when they go into the job market, they have some understanding of what it's like to do field research, what it's like to get engaged in a private sector project or a NGO [nongovernmental organization].

**Independence versus loneliness.** Student opinions differed about the level of independence required for the program. For some, the independence facilitated engagement with the local community and increased their cultural competency.

my mentor was unable to come with me on my trip so I went to my field placement alone...going there alone gave me a good sense of what it was like to really work in a low-resource country's public health office and probably made it easier for me to become a part of the office.

Participants reported the amount of independence granted for scopes of work was variable and depended on the mentor-mentee relationship. One student viewed the independence required to complete a placement as a professional asset.

If you go somewhere that is completely new to you and you work with a completely new group of people, I think it always looks good to any employer, whether you're here or you're international or wherever, that you can rise to challenges, you can be independent.

Other students recalled the loneliness they felt during their placements. Those located in particularly rural areas lacked access to people in their age group and to social activities outside of work.

**Illness.** Physical illness was commonly reported among both students and mentors; some students (17.33%) reported becoming ill or injured while on placement, but no one was prompted to return early from their experience. One mentor commented on the frequency and common-place nature of illness at placements and said, "it's a very dirty place [laugh] and if you're sort of not used to the bugs, you can get sick. I mean almost everybody gets sick when they go there, and how people manage being sick, varies enormously."

**Housing.** Identifying suitable, safe, and affordable housing options before departure was difficult for some students. Other students found that their

housing situations opened doors to relationships and facilitated cultural exchange. One student who lived with a family said, “Luckily for me, once I started, I got to know the family better so, that helped make the living situation really great. They kinda took me in like a daughter, you know? I think that relationship made it better.”

**Interpersonal Factors. Mentorship.** Nearly three-fourths of the faculty respondents (74.3%) said that they served as mentors because they felt that it was part of their training/mentoring duties.

I enjoyed mentoring students; that’s one of my favorite parts about my job here, is being able to work with students...but I think that I grew so much from having a professional mentor, who could understand a little bit more about me and where I want to go in my career. And I think we facilitate that quite a bit.

Many mentors provided students with information about the country and assisted with logistics (housing, transportation, etc.). Some were even available to travel with their student and introduce them to the project team in person. Mentors viewed this as a benefit for students. A few participants also reported that the mentor-mentee relationship they had developed through the program led to continued academic support, advising, and even career opportunities. Faculty reported helping students with their capstone essays and doctoral thesis in addition to writing letters of recommendation.

Other students and faculty focused on the transactional relationship of mentorship. Students expressed different expectations as a result of a non-financial exchange between students and the faculty or Primary Investigator. One student thought their *free labor* should be paid for by way of mentorship.

The advisor should understand that their role isn’t just a PI when they’re dealing with a first-year master student who’s trying to like shape their career goals or doing things for the first time. I think that faculty shouldn’t do it unless they’re prepared to go one step beyond just being a PI or a boss, you know...if they’re going to get this free labor.

Although many faculty were able to cultivate strong mentoring relationships either in person or over e-mail and Skype, some faculty members chose to take a step back once students were in country, letting them form relationships with in-country partners.

I have most of the students on my Skype so if there is an issue, they raise it to me. But in most cases,

I became less valuable to them compared to the field because I am less in touch with what happened in the field as compared to their local supervisor.

**Professional rapport building.** Faculty members saw the placements as opportunities to build relationships with partners and to gain new perspectives on their projects, particularly when they worked with students who had multidisciplinary backgrounds. In response to a question about the value students add to projects, one faculty mentor said, “...it’s not necessarily about the work that they produce as much as them being there to assist with some sort of administrative tasks; at times that sort of greases the wheels of further collaboration.”

Another faculty felt that sending a student to their overseas partner was an extension of their sponsorship. It was therefore in the faculty’s best interest to fully prepare the student. It’s not to our advantage, nor to the student’s benefit to head out to an internship for which they’re not prepared. And in fact, it makes us look bad.”

**Communication between students and faculty.** Communication issues were discussed throughout the IDI and FGD by students who felt there was limited communication with the faculty throughout the predeparture and placement phases of the GHEFP. Although the majority of students (85.33%) reported discussing logistics and scope of work with their faculty mentor, communication breakdown in early planning phases was widely reported and had negative effects on finding appropriate housing and developing satisfactory scopes of work.

Faculty members understood that communication was a problem, although those who repeatedly hosted students felt more confident in their ability to communicate. Some faculty expected their students to report their progress regularly.

Students and faculty also had different expectations about the level of communication needed. Faculty mentors wanted students to be in touch when problems arose but admitted they were not always available; they also recognized the effect this sometimes had on student attitudes and final work product.

**Alignment of expectations.** Although a majority of students (64%) responded that they were as well prepared as they could have been, some faculty mentors were unclear about the center’s role in orienting and preparing students. Faculty expressed flexible expectations of the students and considered the work plan to be a “fluid document.”

Unaligned expectations between faculty mentors and student participants seemed to occur frequently. Faculty members had varying views about the purpose of an overseas placement. Some felt students should come away with a firm work product or helpful skills (85.33%), whereas others sought an opportunity for cultural exchange and an introduction to global health work. This latter view was frustrating for students who felt the placement was meant to help participants gain or refine hard skills.

One student mentioned,

I was just really interested in the health issue but I didn't really have that much expectation for the skills I would be gaining but it was more like the knowledge about that issue in that particular country so—but then I thought, “Yeah, it would've been nice if it was sort of skill-based.”

When discussing the variances in the proposed versus actual scope of work, students reported large evolutions. One student framed this as a misalignment of the faculty member's expectations and objectives with the in-country partners. Faculty, however, reported being acutely aware of the importance of aligned expectations, especially as they related to the in-country partner.

In many instances, we have been the first such internship that organization or that partner has ever taken on. So there's a lot of riding on that—first [is the] student's performance and whether that partner will be willing to take on students in the future. So in [that] context, I think what we have learned is the clarity of expectations from all parties is certainly necessary. So the student's expectations, the partner's expectations, and our expectations all are aligned from the outset, or very soon after the student arrives in country.

### **Institutional Factors**

**Local partnership building.** Students and faculty, both, viewed developing relationships with local collaborators and partners during the field placement as a programmatic benefit. Publications resulting from students' work overseas played an important role in professional development. One faculty mentioned, “we've been able to create a cadre of students who have now formed relationships with the projects and the folks that they've met through those projects. ...we've had students who have published papers through their internships.”

**Institutional review board process delays and difficulties.** The majority of students did not indicate any difficulties related to institutional review boards (IRBs). For those few students who

did encounter IRB difficulties, those problems and delays changed and limited the students' work until the problem was resolved.

**Scope of work.** Faculty and students were encouraged to develop the students' scope of work together, far in advance of any overseas travel. This process is not always feasible and scopes of work often change with the needs of the project. Students mentioned that unclear scopes of work had a major effect on their experience. One student described how they continuously tried to clarify their duties with both faculty and staff on the ground: “I didn't get a lot of like input on what I was going to be doing. I kind of kept asking, ‘do you know what I'm going to be working on?’ Because I didn't quite understand that they would let me do my own thing.” In an FGD, another student mentioned they were left to determine their scope of work on their own once in the field and the Hopkins principal investigator of the project “just sent me an e-mail and told me you need to find out something [scope of work] for yourself.”

Some faculty recognized the disadvantages of unclear scopes of work and believed it hindered the student from meeting their goals.

**Funding levels of the field experience.** Funding seemed to be a consistent “challenge,” as 58.7% of student survey respondents indicated they “Definitely would NOT have participated without any program funding.” Additionally, 61.6% of students responded that the \$3500 award did not cover all the costs associated with their overseas experience. Students and faculty members mentioned the high cost of vaccines and airfare, indicating these 2 items could consume the bulk of the grant based on the location and their vaccination history.

Faculty members frequently used their own resources to supplement the travel grant. From their observations, one faculty member remarked on a trend within their cohort, “I think philosophically many of us share this principle that a student doing a service internship should not suffer financially on top of the current tuition they have to pay just for that field experience.” Another faculty participant echoed this opinion, “the fundamental issue that a student should not incur out-of-pocket costs. You know, they're not paying for the privilege of being an intern. I think really the privilege is ours to have them work with us during that time.”

Furthermore, some students and faculty thought having faculty members financially invested in the students would make them more invested in the student's experience and work.

The faculty FGD uniquely discussed the longevity of the program; participants spent time talking about the inferior state of internships before the program, the dangers of losing the program, and ideas for fundraising and cost-sharing.

### **Societal Factors**

**Contributions to public health.** One student mentioned that completing the GHEFP in an LMIC deepened their understanding of global health and specifically, disparities in resource-limited settings as a result of direct observation on the ground.

For some, the GHEFP inspired future research work and dissertations. One student mentioned that the program “taught me a lot about...the pieces that I would need to consider when I’m designing my own proposal. So I think it definitely made me think about what are the elements that need to be in place for conducting my own research.”

**Safety, regional conflict.** Faculty and students alike emphasized the importance of each student researching the destination, its sociopolitical history, the current state of the economy, and the crime rate. The majority of students did not report safety concerns; a small proportion of students (4.3%) reported “dangerous or unhealthy accommodations and/or food.” In 2013, few students (8.7%) said they were a victim of a crime.

In addition to individual safety concerns, the overall impression of a country’s safety based on recent conflicts produced feelings of danger, even without any reported incidents. One faculty member stated, “we had a big project in Afghanistan and we had a lot of students there and it was a very unsafe environment.” A student who was living in Uganda during a period of ongoing terrorist threats reported discomfort with the situation but not enough to leave the country.

**Global experience and cultural competency.** Both students and faculty felt the program enhanced public health education by providing opportunities for cultural immersion and competency. Faculty members lauded the experience and training that uniquely emerges from a non-classroom experience.

there’s no doubt that it is a positive force...that that keeps Hopkins at the forefront of global health, and that makes the students’ experience unique in contrast to many other schools that don’t have these mechanisms to support global field placements. Because the experience and the training that comes from an actual field experience is irreplaceable and not something that you can capture in a classroom setting.

Some students also valued cultural immersion as integral to the program. One student noted:

...that’s what I really like about international health fieldwork is kind of getting to know the local people and the culture and even when you don’t have the best language skills you can still make a personal connection with people on the ground.

Students observed that the GHEFP afforded them the opportunity to participate in a unique cultural experience and obtain cultural and linguistic skills.

Students awarded the GHEFP had a range of previous experiences abroad; some had a more difficult time with culture shock than others. One such student remarked, “I remember being an undergrad and going abroad for the first time and being very overwhelmed which I think is only natural, I mean it’s sort of confronting culture shock.” Some students also felt that the transition between urban and rural settings was challenging. Similarly, participants reported that adjusting to the workplace overseas took time as they had to account for new hierarchies and gender relations.

**Suggestions for improvement.** In both our qualitative and quantitative research, participants suggested a number of changes to the program to address the aforementioned factors.

**Application process.** Many students suggested the application include specific essays of interest for each of the 3 sites to which they are applying. Both faculty and students expressed a desire for the CGH to better present its expectations for the faculty. Regarding funding, students recommended that funding amounts correspond to in-country duration.

**Preparation for placement.** Overall, respondents found the communication, coordination, and preparation done by the CGH to be satisfactory. Students sought more connection with and information from other students. Before travel, many students would have liked to have been connected to the other awardees travelling to the same country to facilitate planning. To combat in-country loneliness and establish future career networks, students have recommended the center link students to others who will reside in the same country, whether they were program participants or not.

Students also requested the CGH facilitate connections between students working on the same site over different years.

The timeline of the award cycle hindered preparation for some. One student wrote, “If I had received the grant earlier, I would have spent less on my plane ticket and everything wouldn’t have been so rushed.”

**Practicum experience.** Many students sought structured communication with their PIs and the center while overseas. Students suggested the CGH check in with general questions and that the PIs are recommended or required by the CGH to consult with their students on a regular basis.

**Postpracticum experience.** In the surveys, a number of students wished to reflect with others in a group, in addition to the self-reflection prompted by the reporting requirements. Faculty sought evaluations of their performance by students and students expressed interest in providing that feedback through formal mechanisms.

## DISCUSSION

The present study uncovered a series of factors that potentially shape the experience of participants in overseas public health placements. Figure 1 summarizes these factors across 4 aggregate levels following an SE model framework. Among them, opportunity for professional advancement, independence, loneliness and illness, mentorship quality, funding, institutional partnership building, and opportunity for public health contribution, and for development of cultural competency were the most salient.

Results from the present study demonstrate that both faculty and students believe that overseas placements are beneficial to the global health learning experience, to the overseas projects, and to developing cross cultural relationships. The field experience has lasting effects on students’ career choices and faculty appreciate the opportunity to serve as mentors. Given this high level of impact, it is vital for the center and other global health institutions to be able to continue supporting students

and faculty in overseas trainings efforts. Important support mechanisms highlighted in the study include steady funding, clear preparation, and communication facilitated across the experiential continuum.

Given the emphatic discussions regarding funding, it is clear this is a hot topic. Institutions should encourage faculty members to think about student involvement in their projects in early stages of planning and build in funds into their grants if possible. This may also mitigate students from viewing themselves as “free labor” for faculty mentors.

An interesting finding was that services already provided by the center (ie, student networking and pretravel orientation) were identified as participant recommendations. This could demonstrate a problem with the center’s ability to communicate or, a lack of attention paid by participants to resources provided. The center has worked to annually improve processes, so student respondents from 2011 may have had very different experiences from those in 2013.

Qualitative data was collected at the School of Public Health in a period of 4 months. This limited the number of available participants and may have had an effect on adequate representation of program participants by sex, level of experience, school, and location of field placement. Some data collectors had participated in this program previously or were applying to participate at the time of data collection and this may have had an effect on the tone and interpretation of data in the IDIs and FDGs. Students collecting data from faculty may have introduced an interviewer or moderator bias.

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